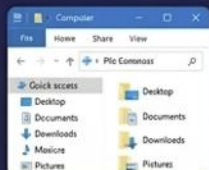




RGE ESSENTIALS #17: WINDOWS

NETWORK TROUBLESHOOTING COMMANDS

WHEN WI-FI SAYS "CONNECTED" ... BUT NOTHING WORKS



RGE TIP: You don't need to understand every line of the results. The goal is simply to answer:

Where did the connection stop working?

Computer → Router → Internet → DNS → Website.



PC NOTE: These exact commands are for Windows. To open:

1. Click **Start**.
2. Type **cmd**.
3. Select **Command Prompt**.

Then type a command and press **Enter**.

1

1. EVERYONE USES THESE (ESSENTIALS) • Everyday Diagnostics



ipconfig

What it does: Shows your computer's basic network information.

Useful clue: Checking whether the computer received an IP address from your router.



ping 8.8.8.8

What it does: Tests whether your computer can reach the Internet.

Useful clue: If this works but websites don't, the Internet connection may be fine and DNS could be the problem.



ping google.com

What it does: Tests both Internet connectivity and whether DNS can translate a website name.

Useful clue: If ping 8.8.8.8 works but ping google.com doesn't, investigate DNS.



ipconfig /flushdns

What it does: Clears Windows' stored DNS information.

Try this when: Websites won't load correctly even though the Internet connection appears to



RGE TIP: Run these two pings first, in order. They tell you in under a minute whether the problem is your connection or something else.

2

2. USEFUL SKILLS (GOOD TO KNOW) • Do More



ipconfig /all

What it does: Shows detailed information about your network adapters.

Useful for: Finding the IP address, router (Default Gateway), DNS servers, and other connection details.



nslookup google.com

What it does: Asks your DNS server to look up a website's IP address.

Useful for: Checking whether DNS is working properly.



tracert google.com

What it does: Shows the path your connection takes across the Internet.

Useful for: Seeing where communication stops between your computer and its destination.



RGE TIP: If the ping tests point to DNS trouble, flush DNS first — it fixes more than you'd expect, and it's completely safe to run.

3

3. ADVANCED TOPICS (USE WITH CAUTION) • Control



tracert results

What they mean: A complex map of the Internet. Focus on where asterisks (***) start, and report that to support.



Changing network settings

What it can do: Can cause major problems. Avoid unless instructed by a qualified technician.



Other technician-level tools

Include netstat, arp, getmac, netsh, etc. For professional use, not essentials.



RGE TIP: If tracer results are confusing, that's normal—even technicians read them slowly. Note where the replies stop and describe that to support.

THE RGE TROUBLESHOOTING ORDER

1. **ipconfig** → Did the PC get a network address?
2. **ping 8.8.8.8** → Can we reach the Internet?
3. **ping google.com** → Can DNS find websites?
4. **ipconfig /flushdns** → Clear stale DNS information.
5. **nslookup / tracert** → Confirm and locate the break.

IMPORTANT SAFETY REMINDERS

- ✓ These commands only look at your connection — they don't change settings.
- ✓ Restarting your router fixes most problems before you even need this sheet.
- ✓ If a website is down for everyone, no command on this sheet will fix that.
- ✓ If a result looks unfamiliar or confusing, stop and ask — that's what support is for.



RGE GOLDEN RULE:

Know where your files are before organizing or moving them. Good today prevent headaches tomorrow.



RED GLEN ELECTRONICS
"A Boomer Helping Fellow Boomers."



RGE PHILOSOPHY

Teacher first.
Technician second.
Peoples always.

Learn. Explore. Don't Furr Windows.

Practical Tech Solutions

Honest Advice

Simplifying Technology

● (ESSENTIALS) • Everyday Tasks

● (GOOD TO KNOW) • Do More

● (USE WITH CAUTION) • Control

⌚ Estimated Reading Time 5 minutes